

AESTHETIC SECURITY DOORWAYRelated Applications

5 This application is a continuation-in-part of U.S. Patent Application No. 09/439,231, filed November 12, 1999, entitled AESTHETIC SECURITY DOORWAY, the entire contents of which are hereby incorporated by reference.

Background of the Invention

10 Field of the Invention

 This invention relates to a decorative doorway for use on a residential home or other type of building, or with an outdoor fence.

Description of the Related Art

15 Security doors have been used for a number of years to provide additional security for a home, beyond that provided by a conventional door. These doors typically comprise a cage-door-like structure of wrought iron or other suitable metal, hung from the doorway in front of a standard wood or steel "panel" type door. While attempts have been made to enhance the attractiveness of these security doors by adding
20 decor to the bars making up the cage, they nonetheless retain a "tacked-on" appearance, having been designed without regard to the look of the surrounding structure of the home or building to which they are affixed. Furthermore, an observer can easily identify these security doors, as they have a heavy, rectilinear appearance which limits the extent to which the door can blend into the design of the surrounding structure.

25 Accordingly, there is a need for a security door which has an aesthetically pleasing design that is not easily recognized by an observer as a security device.

Summary of the Invention

30 One aspect of the present invention is a doorway which is of sufficiently strong construction to provide the needed security, but which has an aesthetically pleasing design.

Another aspect of the present invention is a security doorway with a door which is not easily identified as a security door by a nearby observer.

5 An aesthetic security doorway is made up of a door with a support structure and a number of crossbars which are shaped and arranged to take on an aesthetically pleasing design, and a doorframe surrounding the door with ornamentation that continues the design of the door onto the doorframe so as to form a unitary decorative image. The crossbars and ornamentation can convey a variety of suitable design themes, such as palm tree branches and fronds, or vines and leaves.

10 More generally, the aesthetic security doorway invention is useful for concealing and lending decor to security barriers of various types employed to enclose a structure or land.

15 In accordance with one embodiment, a decorative security door system comprises a door, which in turn comprises a generally planar support structure, and a plurality of cross members connected to the support structure. The cross members are shaped and arranged to form an aesthetically pleasing design. The decorative security door system further comprises a doorframe surrounding the door, and the doorframe has ornamentation which continues and complements the design formed by the cross members. The door is slidably received in the doorframe.

20 In accordance with another embodiment, a protective barrier system comprises a barrier, which in turn comprises a generally planar support frame and a plurality of cross pieces connected to the support frame. The cross pieces are shaped and arranged to form an aesthetically pleasing design. The protective barrier system further comprises a barrier frame surrounding the barrier. The barrier frame has decorative elements which extend the design formed by the cross pieces onto the barrier frame. The barrier is slidably received in the barrier frame.

25 In accordance with another embodiment, a method for concealing a security door comprises mounting the door in a doorframe so as to be slidable therein, attaching a plurality of cross members to the door, arranging the cross members to form a decorative design, and providing ornamentation on the doorframe, so that the ornamentation continues the design formed by the cross members.

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In accordance with another embodiment, a decorative security door system comprises a door, which in turn comprises a generally planar support structure and a plurality of cross members connected to the support structure. The cross members are shaped and arranged to form a first portion of an image. The decorative security door system further comprises a doorframe surrounding the door. The doorframe has ornamentation which forms a second portion of the image, so that the perimeter of the door is obscured by the image. The door is slidably received in the doorframe.

In accordance with another embodiment, a decorative security door system comprises a door, which in turn comprises a generally planar support structure, and a plurality of cross members connected to the support structure. The decorative security door system further comprises a wall surrounding the door. The wall has ornamentation, and the cross members and the ornamentation form an image which tends to conceal the shape of the door. The door is slidably received in the wall.

In accordance with another embodiment, a method for concealing a security door comprises mounting the door in a doorframe so as to be slidable therein, attaching a plurality of cross members to the door, arranging the cross members to form a first portion of an image, and forming a second portion of the image by applying ornamentation to the doorframe, so that the image tends to conceal the overall shape of the door.

The advantages and objects of the invention will become evident from the following detailed description when read in conjunction with the accompanying drawings which illustrate preferred embodiments of the invention.

Brief Description of the Drawings

FIG. 1 is an elevation view of one embodiment of an aesthetic security doorway in accordance with the present invention;

FIG. 2 is an elevation view of another embodiment of an aesthetic security doorway in accordance with the present invention; and

FIG. 3 is a perspective view of the aesthetic security doorway of **FIG. 1** installed on a residential home.

FIG. 4 is an elevation view of a sliding-door embodiment of the aesthetic security doorway.

FIG. 5 is an elevation view of another sliding-door embodiment of the aesthetic security doorway.

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Detailed Description of the Preferred Embodiment

FIG. 1 shows an embodiment of an aesthetic security doorway 10 in accordance with the present invention. The doorway 10 comprises a door 12 suspended within a doorframe 14. The doorframe 14 may be integral with a wall 15 of a dwelling or other building, or the doorframe 14 can serve as entryway to a fenced-in outdoor area.

The door 12 comprises a rigid main structure 16 with a plurality of similarly rigid crossbars, cross members or cross pieces 18 attached to the main structure 16. The main structure 16 (shown here schematically) is made up of vertical bars 20a, 20b and horizontal bars 22a, 22b joined at the four corners formed thereby. Alternatively, the main structure 16 may comprise a solid panel of wood or metal with crossbars 18 across its outer surface. The main structure 16 is shown in a rectangular shape, but one of skill in the art will recognize that alternative forms are possible such as an arched-top style, with a rounded or arched horizontal bar 22a.

Crossbars 18 span the plane of the main structure 16 with the crossbars 18 attached to each other and/or the main structure 16 to form a substantially planar, rigid grill with openings which are small enough to prevent human passage through the door 12. The crossbars 18 are shaped and arranged to create an aesthetically pleasing design for the door 12, such as the palm tree theme shown in **FIG. 1**, or the vines and leaves shown in **FIG. 2**. Those familiar with the art can readily envision alternative design themes which lend themselves to use as pattern for the crossbars 18 of the door 12.

The doorframe 14 includes a plurality of decor elements 24 which complement the design formed by the crossbars 18. The decor elements 24 can comprise either extensions 26 of the crossbars 18 beyond the perimeter of the door 16 or they can be independent but complementary elements 28, which carry the design theme onto the doorframe 14 in a different manner. Both types of decor elements 24 cooperate with the design on the door 12 to create a single unitary design which visually blends the door 12

into the doorframe 14. In this manner the otherwise rigid, rectilinear form of the security doorway 10 is obscured, making it difficult for an observer to recognize the door 12 as a security device.

5 The decor elements 24 may be of lightweight construction so as to be purely decorative, or they may be composed of rigid material so as to reinforce the structure of the doorframe 14 and wall 15, providing additional security.

10 **FIG. 3** illustrates the use of the security doorway 10 in a residential home 30, from the perspective of an observer on a sidewalk or street. Complementary decor 32 can be added adjacent to windows 34 or other parts of the home 30, or the entryway area, to continue the design theme throughout the exterior of the home 30. Furthermore, the design can be chosen to match or reflect the elements of the landscape 36 surrounding the home 30.

15 Naturally, one of skill in the art will recognize the invention is not limited to use with doorways; rather, it is equally suitable for use on windows or other passageways associated with the enclosure of buildings or land.

20 **FIG. 4** depicts a sliding door embodiment 100 of the aesthetic security doorway. In this embodiment the door 12 is slidably received in the doorframe 14, but the sliding-door embodiment may be largely similar to the embodiments described above, except as specified below. A secondary panel 102 may also be mounted in the doorframe 14 adjacent the door 12. The secondary panel may be stationary, or it may slidable within the doorframe 14 like the door 12.

25 The door 12 of the sliding-door system 100 is preferably similar to that disclosed in the embodiments discussed above, with a rigid main structure 16 and a plurality of similarly rigid crossbars, cross members or cross pieces 18 attached to the main structure 16. The secondary panel 102 includes a plurality of rigid, secondary crossbars, cross members or cross pieces 104 attached to a rigid main structure 106 of the secondary panel, and/or to adjacent portions of the doorframe 14.

30 The crossbars 18 and secondary crossbars 104 span the plane of the door 12 and secondary panel 102, respectively, to form substantially planar, rigid grills with openings which are small enough to prevent human passage through the door 12/secondary panel 102. The crossbars 18 and secondary crossbars 104 are shaped and

arranged to create an aesthetically pleasing design for the door 12 and secondary panel 102, such as the palm tree theme shown in FIG. 4. Those familiar with the art can readily envision alternative design themes (including the vines and leaves shown in FIG. 2) which lend themselves to use as pattern for the crossbars 18 and secondary crossbars 104, which alternatives are considered to be within the scope of the present invention.

The design formed by the crossbars 18 can be extended beyond the perimeter of the door 12 by the secondary crossbars 104, which can be made to appear to be a continuation of the design onto the secondary panel 102, as shown in FIG. 4. In addition, the decor elements 24 of the doorframe 14 carry the design or image from both the door and the secondary panel onto the doorframe. In this manner, the form or perimeter of the door and/or secondary panel is obscured as discussed above. That is, the decor elements 24 and/or the secondary crossbars 104 cooperate with the design on the door 12 to create a single unitary design which visually blends the door 12 into the secondary panel 102 and the doorframe 14. In this manner the otherwise rigid, rectilinear form of the security doorway 100, as well as the door 12 and secondary panel 102, is obscured, making it difficult for an observer to recognize as a security device the door 12, secondary panel 102 and the doorway as a whole.

In addition, a glass panel (not shown) may be built into the door 12 and/or secondary panel 102, either behind or integrated with the crossbars 18/secondary crossbars 104.

FIG. 5 depicts another sliding-door embodiment 200 of the aesthetic security doorway. In this embodiment the door 12 is slidably received in the doorframe 14 and is preferably located (when in the closed position) between a left secondary panel 106a and a right secondary panel 106b. The door 12 is preferably configured to slide to the left or right to permit entry therethrough. In this embodiment, however, the door 12 may occupy any of the three positions depicted (when in the closed position), and any of the three may serve as a secondary panel 106, so long as at least one of the three is moveable and functions as a door. The door 12 and/or secondary panels may have a built-in glass panel as discussed above.

5 The crossbars 18 form a design which is continued or extended beyond the perimeter of the door 18 by the decor elements 24 extending from the doorframe 14 and/or by the secondary crossbars 104 of the secondary panels 102a, 102b. The decor elements 24 may also extend the design of the crossbars 18 by appearing to continue the secondary crossbars 104 onto the doorframe 14 and/or the wall 15.

10 The doorway 200 may also include complementary windows 202 with tertiary crossbars 204 which extend and continue the design of the crossbars 18 and/or secondary crossbars 104 onto the windows 202. Secondary decor elements 206 may be affixed to the wall 15 to carry the design beyond the windows 202. The secondary decor elements 206 may be generally similar to the decor elements 24.

15 With the design of the cross members 18 thus extended beyond the perimeter of the door 12 and secondary panels 102a, 102b, the form of the door is obscured against the secondary panels and doorframe, and the overall form of the entire doorway is obscured as well, making it difficult for an observer to recognize as a security device the door 12, secondary panels 102 and the doorway as a whole.

In a further embodiment, the decor elements 24 may be omitted so that the design is extended beyond the door 12 by only the secondary and/or tertiary crossbars 104, 204.

20 It should be understood that the scope of the present invention is not to be limited by the illustrations or the foregoing description thereof, but rather by the appended claims, and certain variations and modifications of this invention will suggest themselves to one of ordinary skill in the art.